

REMARKS/ARGUMENTS

The Office Action of March 16, 2005, has been carefully reviewed and this response addresses the Examiner's concerns stated in the Office Action. All rejections are respectfully traversed.

I. STATUS OF THE CLAIMS

Claims 1-8, 14-20, and 26-37 are currently pending.

Claims 9-13 and 21-25 have been cancelled without prejudice.

Claims 8 and 26-37 have been allowed.

Claims 1 and 5-7 are rejected as being anticipated under 35 U.S.C. § 102(a) by Akos et al., "Real-Time GPS Software Radio Receiver" ION NTM 2001 (Akos) and under 35 U.S.C. § 102(e) by Yang, United States Patent # 6,407,699, issued June 18, 2002 (Yang).

Claims 1-7 and 14-20 are rejected under 35 U.S.C. § 102(b) as being anticipated by Ledvina et al., "A 12 Channel Real-Time GPS Software Receiver," dated 12 December 2002 (internal draft date) ("Ledvina"). Further information is provided herein to support the fact that this reference was not available to the public until January 11, 2003, a date that was after the priority date of the present application (i.e., January 10, 2003).

II. REJECTION OF CLAIMS 1 and 5-7 UNDER 35 USC § 102(a, b, and e) AS BEING ANTICIPATED BY AKOS, LEDVINA, AND YANG

Applicants respectfully point out that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628 (CAFC, 1987), M.P.E.P. § 2131. As provided by the remarks set forth below, clearly this is not the case with the present rejection of the claims.

Rejection under 35 U.S.C. 102(a) - Akos

On page 2, in paragraphs 3-5, of the Office Action, claims 1 and 5-7 are rejected under 35 U.S.C. § 102(a) as being anticipated over Akos. Please note that independent claim 1 is the base claim for dependent claims 5-7.

On page 2, in paragraph 5, the Office Action states that Akos discloses a software receiver comprising: a receiver capable of receiving radio signal; means for digitizing the radio signal; and as software correlator. The Office Action also states that the digitizing comprises means for down converting the radio signal and digitizing the IF as claimed in claim 5, and that the digitizer produces at least one bit/sample and the digitizer is an analog to digital converter as claimed in claims 6-7 (see FIGs. 1 and 2).

Applicants respectfully point out that Akos does not describe a software correlator at all. In the event Applicants have misread Akos, Applicants respectfully request that the Examiner provide further information as exactly where in Akos a software correlator is described or mentioned. Further, if a correlator were used, such use would also imply, according to conventional systems contemporary with Akos, the use integer or floating-point computations on sampled radio frequency data, one set of operations per sample. In view of the complete lack of a software correlator in Akos, no further rebuttal is needed with respect to Akos at this time.

Therefore, since Akos does not anticipate each and every of Applicants' independent claim 1, independent claim 1 (as well as dependent claims 2-7) is not anticipated by Akos and a rejection under 35 U.S.C. § 102(a) is inappropriate. Applicants respectfully request the withdrawal of the rejection under 35 U.S.C. § 102(a) directed to independent claim 1, and therefore dependent claims 2-7, and find independent claim 1, and therefore dependent claims 2-7, in condition for allowance. Furthermore, a 35 U.S.C. § 103 rejection of claim 1, and therefore dependent claims 2-7, would be inappropriate since Applicants' claimed invention is not an obvious extension of the use of Akos to meet Applicants' patentable limitations.

Rejection under 35 U.S.C. 102(b) - Ledvina

On pages 3-4, in paragraph 6, of the Office Action, claims 1-7 and 14-20 are rejected under 35 U.S.C. § 102(b) as being anticipated over Ledvina. Please note that independent claim 1 is the base claim for dependent claims 2-7 and independent claim 14 is the base claim for dependent claims 15-20.

This is an improper rejection under 35 U.S.C. 102(b) because Ledvina was not available as a printed publication until Jan. 11, 2003, a date which is after the priority date of the present application. The priority date of the present application is January 10, 2003, based upon United States Provisional Patent Application Serial No. 60/439,391 entitled REAL-TIME SOFTWARE RECEIVER. Applicants have also provided herein as Appendix A a copy of the declaration that was provided for the related PCT application which clarifies the publication date to be after January 10, 2003. The declaration provided herein clarifies the publication date of Ledvina to be after the priority date of the present application. If the Examiner prefers that Applicants obtain a declaration identical to the one attached that refers to the present U.S. application, Applicants will do so.

Applicants, therefore, respectfully point out that Ledvina is not a proper reference under 35 U.S.C. 102(b), and a rejection under 35 U.S.C. § 102(b) is inappropriate. Applicants respectfully request the withdrawal of the rejection under 35 U.S.C. § 102(b) directed to independent claim 1 and independent claim 14, and therefore dependent claims 2-7 and 15-20, and find independent claim 1 and independent claim 14, and therefore dependent claims 2-7 and 15-20, in condition for allowance.

Rejection under 35 U.S.C. 102(e) - Yang

On page 4, in paragraph 7, of the Office Action, claims 1 and 5-7 are rejected under 35 U.S.C. § 102(e) as being unpatentable over Yang. Please note that independent claim 1 is the base claim for dependent claims 5-7.

The Office Action states that Yang discloses a GPS software receiver comprising: a receiver capable of receiving radio signal; means for digitizing the radio signal; and a software

correlator. The Office Action also states that the digitizing comprises means for down converting the radio signal and digitizing the IF as claimed in claim 5, and that the digitizer produces at least one bit/sample and the digitizer is an analog to digital converter as claimed in claims 6-7 (see FIGs. 1 and 2, col. 7, line 35 -- col. 8, line 26).

Applicants respectfully point out that Yang does not describe a software correlator at all but instead describes a signal acquisition and tracking mechanism. Even if a software correlator were implied in the disclosure of Yang, the prior art in such a correlator implies the use integer or floating-point computations on sampled radio frequency data, one set of operations per sample. Nowhere does Yang disclose, either explicitly or inherently, a software correlator that uses of bit-wise parallelism.

Applicants respectfully point out that Yang does not anticipate each and every element of Applicants' independent claim 1. Therefore, independent claim 1 (as well as dependent claims 2-7) is not anticipated by Yang and a rejection under 35 U.S.C. § 102(a) is inappropriate. Applicants respectfully request the withdrawal of the rejection under 35 U.S.C. § 102(a) directed to independent claim 1, and therefore dependent claims 2-7, and find independent claim 1, and therefore dependent claims 2-7, in condition for allowance. Furthermore, a 35 U.S.C. § 103 rejection of claim 1, and therefore dependent claims 2-7, would be inappropriate since Applicants' claimed invention is not an obvious extension of the use of Yang to meet Applicants' patentable limitations.

III. ALLOWABLE SUBJECT MATTER

On pages 4-5, in paragraphs 8-9, of the Office Action, claims 8 and 26-37 are allowed.

IV. CONCLUSION

In view of the absence from any cited reference of Applicants' claimed invention, either singly or in combination, as set forth above, Applicants respectfully urge that Akos and Yang, separately or in combination, are not sufficient to render the presently claimed invention

anticipated under 35 U.S.C. § 102(a or e) or unpatentable under 35 USC § 103. In view of the inappropriate reference under 35 U.S.C. § 102(b), Applicants respectfully urge that Ledvina is not sufficient to render the presently claimed invention anticipated under 35 U.S.C. § 102(b).

Applicants assert that claims 1-7 and 14-20 stand allowed because there is no combination of references cited against those claims that teach or disclose Applicants' claimed invention. Independent claim 1 and independent claim 14 are believed to be in condition for allowance for the reasons stated above. All dependent claims depend upon allowable independent claims, and are therefore also believed to be in condition for allowance. Claims 8 and 26-37 have been found to be allowable. Applicants respectfully urge Examiner to find all claims presented in the present application in condition for allowance and to pass the case to issue.

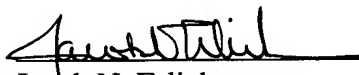
The Commissioner for Patents is authorized to charge additional fees or credit overpayment to Deposit Account No. 03-2410.

The following information is presented in the event that a call may be deemed desirable by the Examiner:

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Respectfully submitted,
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Date: June 9, 2005

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